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September 10, 2010

Arizona Corporation Commission
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Docket Control
Arizona Corporation Commission
1200 W. Washington
Phoenix, AZ 85007

RE: SEPTEMBER 2010 AMI PLAN BIANNUAL REPORT
DOCKET NO. E-01345A-03-0775 & E-01345A-04-0657
DECISION NO. 68112

Pursuant to Paragraph 32(e) of Settlement Agreement in Decision No. 68112:

For the next six years, APS shall provide the Commission with biannual reports related to the status of the remote meter reading pilot and implementation plan. The reports shall provide a description of the meter reading technology being implemented, APS' plan for implementation, the number and type of customers involved in the pilot program, the cost associated with implementation, and the operational efficiencies associated with implementation.

Attached please find the September 2010 AMI Biannual Report.

If you have any questions regarding this information, please contact David Rumolo at (602)250-3933.

Sincerely,

Susan Casady

Susan Casady

SC/sl
Attachment

cc: Brian Bozzo
Barbara Keene

Arizona Public Service
AMI Plan Biannual ACC Report
September 2010

Introduction

Decision No. 68112 requires Arizona Public Service (APS) to provide the Arizona Corporation Commission ("ACC") with biannual reports related to the status of APS's remote meter reading implementation. This report provides a description of the meter reading technology being installed, APS's implementation plan, information regarding the customers involved in the program, and the costs and operational efficiencies associated with implementation. This is the tenth biannual filing addressing the status of the Advanced Metering Infrastructure (AMI) Plan and details the progress made in implementation since March 2010.

AMI Project Overview

APS began installing smart meters as part of an AMI initiative in 2006 and by the end of 2012 more than 950,000 APS customers in the metro Phoenix area and the more populated areas of the rural service territory will have smart meters. This, together with the meter communication and data infrastructure to drive software applications will enable APS and its customers to utilize smart meter data in order to reduce costs and maximize efficient use of energy.

APS utilizes two different AMI systems provided by Elster Electricity LLC, the AMS 9000® and EnergyAxis® systems. At the end of 2008, APS had installed 156,000 AMS 9000® meters. In May 2008, APS awarded a contract to Elster for an additional 800,000 smart meters for residential, commercial and industrial customers. Both AMI systems provide a platform for APS to improve operations and customer service through two-way communication for both residential and commercial meters. In addition, most EnergyAxis® meters provide remote connect and disconnect capabilities.

The software APS is using to manage the significant increase in meter data driven by AMI is the Aclara Energy Vision® Meter Data Management System (MDMS). The Aclara MDMS stores and provides a common interface to the customer data transmitted to and from the smart meters. The MDMS software provides APS with capabilities, including:

- Management of interval meter data and reads
- Interoperability with multiple meter technologies
- Integration with existing APS applications such as the Customer Information System (CIS) and aps.com
- A common interface to APS applications enabling APS to rapidly process service orders (connects, disconnects, on-request reads and interval usage and rate changes)

The MDMS is the database of record for all interval electricity usage data.

In May 2009, APS installed the Aclara Bill Prism®, a web portal that integrates smart meter data with CIS and the aps.com website. This allows APS residential customers with AMI smart meters to view their detailed electricity consumption graphically on-line and provides information to assist customers manage their energy usage. Bill Prism® provides an in-depth bill analysis function using smart meter data as well as a carbon calculator that assists customers in quantifying and reducing their personal carbon footprint.

Project Status

Meter Deployment:

Through August 2010, approximately 465,000 smart meters were installed throughout the APS service territory. This includes approximately 36,000 meters within the City of Flagstaff. These meters are a critical element of the Community Power Project Flagstaff Pilot.

APS is currently deploying AMI meters in the Yuma area. Approximately 50,000 meters have been installed since June with an additional 10,000 installed by the end of September. The Yuma installation supports the APS Peak Solutions demand response project which is expected to yield 100MW of capacity in Phoenix and Yuma by 2012.

Since the March 2010 biannual report, APS has deployed approximately 113,000 AMI smart meters and expects to install another 66,000 smart meters by year end. Over the next six months, APS will continue installing smart meters in the City of Yuma, parts of Tempe and Central Phoenix.

Systems Integration:

Since the March 2010 filing, the following milestones have been achieved:

- Completion of system work that supports billing for the new Peak-Event Pricing and Super-Peak rates
- Leveraged AMI technology by providing interval usage data for on-demand load reduction test event and measurement and verification calculations for APS Peak Solutions
- Completed integration of the MDMS system with additional internal and external systems

Costs:

This project has three main cost components: meters and meter installation, monthly cellular communications, and interface development.

Meters and Installation:

The average installed cost of an Elster meter for this reporting period was approximately $165. This includes single phase, three phase and collector meters.

Monthly Cellular Communications:

APS has contracted with KORE Wireless to provide cellular service for meter communications. Through July 2010, the average monthly per meter communication cost was approximately $0.15. As new cellular options become available and meter technology advances to allow greater economies of scale, the cost of communication is expected to decrease.

Interface Development

APS has spent approximately $2.4 million on information technology (IT) integration during this reporting period. This cost includes hardware and the development of interfaces to APS systems.

Operational Efficiencies

The ability to read and program meters remotely provides immediate operational efficiencies as well as the potential to significantly reduce the cost of implementing new rate designs.

The following table illustrates the number of field visits eliminated during the last six months for customers with AMI meters.

Month	Transfer of Service	Rate Change & Verify	Connects	Disconnects	Total
3/2010	10,895	2,591	1,986	2,086	17,558
4/2010	11,108	2,997	2,177	2,411	18,693
5/2010	10,361	2,669	2,221	2,409	17,660
6/2010	13,287	3,320	2,459	2,754	21,820
7/2010	13,326	3,588	2,522	2,427	21,863
8/2010	13,635	3,333	2,965	3,220	23,153
Total	72,612	18,498	14,330	15,307	120,747

Reduction of field trips results in lower fuel consumption and reduced emissions, which support APS's effort to reduce its carbon footprint. Reducing field trips also supports the APS corporate value of safety by reducing the potential for vehicular accidents and other safety-related events.

Summary

Since the March 2010 report, APS has:

- Installed approximately 113,000 additional smart meters
- Completed system changes that support billing for the new Peak-Event Pricing and Super Peak rates

- Provided measurement and verification calculations for APS Peak Solutions load reduction test event
- Completed integration of the MDMS system with additional internal and external systems

Within the next six months, APS plans to:

- Continue deployment of smart meters
- Explore additional applications that leverage smart meter data

In conclusion, over the past six months APS has made significant progress in building the foundation to manage smart meter data. Through these efforts, APS is creating an advanced technology platform to meet growing customer expectations for better management of electricity consumption and costs.

The next biannual report will be submitted by APS to the Commission in March 2011.